REMARKS

In the Office Action, claims 1-8, and 12-20 were rejected under 35 U.S.C. § 102(e) as being anticipated by Wang et al., (U.S. Patent 7,103,205, hereinafter "Wang"). Claims 9-11 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicants respectfully request reconsideration and allowance of the pending claims in view of the following remarks.

Rejections Under 35 U.S.C. §102

Claims 1-8, and 12-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by Wang. Claims 1-8, and 12-20 are believed to be patentable as discussed below.

Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. Applicants respectfully assert that the present invention, as recited in independent claims 1, 12, 13 and 20, is patentable over Wang.

Claim 1, recites, *inter alia*, a method for multi-modality registration using virtual cursors. The method includes calculating a shadow cursor position for a location in the three-dimensional image dataset, the shadow cursor position corresponding to the user cursor position and the calculating including a correction for the magnification factor corresponding to the shadow cursor position for the slice of interest and outputting the shadow cursor position.

Claim 12, recites, *inter alia*, a method for multi-modality registration using virtual cursors. The method includes calculating a shadow cursor position for a location in the two-dimensional image dataset, the shadow cursor position corresponding to the user cursor position and the calculating including a

correction for the magnification factor corresponding to the shadow cursor position and outputting the shadow cursor position.

Claim 13, recites, *inter alia*, a system for multi-modality registration using virtual cursors. The system includes calculating a shadow cursor position for a location in the two-dimensional image dataset, the shadow cursor position corresponding to the user cursor position and the calculating including a correction for the magnification factor corresponding to the shadow cursor position and outputting the shadow cursor position.

Similarly, claim 20 recites *inter alia*, a computer program product for multi-modality registration using virtual cursors. The computer program product includes calculating a shadow cursor position for a location in the three-dimensional image dataset, the shadow cursor position corresponding to the user cursor position and the calculating including a correction for the magnification factor corresponding to the shadow cursor position for the slice of interest and outputting the shadow cursor position.

Wang fails to teach "receiving a slice of interest in said three-dimensional image dataset, *said slice of interest selected from said plurality of image slices*".

All of the independent claims recite, in generally similar language, that a slice of interest in a three-dimensional dataset is received, with the received slice being selected from a plurality of slices. The Examiner, in formulating the rejection, referred to a passage from Wang found at column 7, lines 65-67, and included in a parenthetical interpretation of Wang:

> note that a thick slice image is an integration of a plurality of substantially parallel individual ultrasound slices.
>
> Office Action, page 3.

The Examiner is correct in interpreting Wang as teaching the integration of a plurality of slices to arrive at a thick slab. However, it is this thick slab that is treated in the image processing, and not individual image slices. Indeed, once Wang has converted image slices to the thick slab, it would appear to be impossible to perform the technique recited in the pending independent claims because individual slices are not longer separately selectable. At the very least, it is impossible to interpret Wang, as does the Examiner, as teaching that a slice of interest in a three-dimensional image dataset is received, with the slice of interest selected from a plurality of image slices. By the point in the processing in which Wang would select any particular point or feature, no such image slices are present for selection in the integrated slab.

For this reason alone, Wang cannot possibly anticipate the pending claims.

Wang fails to teach *calculating a shadow cursor position* for a location in the three-dimensional image dataset, the shadow cursor position corresponding to the user cursor position and the calculating including a correction for the magnification factor corresponding to the shadow cursor position for the slice of interest; and *outputting the shadow cursor position.*

On page 3 of the current Office Action, the Examiner suggested that Wang is believed to teach calculating a shadow cursor position for a location in the three-dimensional image dataset and referred to col. 9, lines 38-40 of Wang. The Examiner also suggested that Wang is believed to teach a magnification factor corresponding to the shadow cursor position for the slice of interest and referred to Fig. 6 and col. 10, lines 1-4 of Wang.

The cited passages from Wang do not support the Examiner's position, however. In describing the method of acquisition and display of breast ultrasound information, nowhere does Wang *teach how to calculate a shadow cursor position for a location in the three-dimensional image dataset, the shadow cursor position*

corresponding to the user cursor position. Indeed, one skilled in the art would clearly understand that the user simply *moves a cursor* over a particular thumbnail of interest and *spatial scale is increased to the same scale.* Moreover, Wang, at the very least, never indicates that *the calculations may include a correction for the magnification factor corresponding to the shadow cursor position for the slice of interest.*

Moreover, again on page 3 of the current Office Action, the Examiner suggested that Wang is believed to teach outputting the shadow cursor position, and referred to FIG. 13 and 14 and col. 10, lines 22-26. The Examiner also mentioned that the user may optionally perform mixing parameter adjustments. Here again, the cited passage from Wang does not support the Examiner's position. One skilled in the art would clearly, again, conclude that *this scaling of the component images is not outputting the shadow cursor position.*

Conclusion

In summary, Applicants respectfully submit that Wang cannot support a *prima facie* case of anticipation of independent claims 1, 12, 13 and 20. Accordingly, Applicants respectfully request the Examiner to reconsider the rejection of these claims. Claims 2-8 depend from independent claim 1; claims 14-19 depend from independent claim 13. Thus, it is respectfully requested that the rejection of these claims under 35 U.S.C. 102(e) also be withdrawn.

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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